

AMENDMENTS TO THE CLAIMS

Claim 1. (currently amended) A mechanical device, characterized by comprising:

drive means for performing a behavior;

stimulus detection means for detecting a stimulus;

storage means for storing a behavioral model prescribing a behavior;

control means for controlling said drive means based on the behavioral model stored in said storage means; and

changing means for changing the behavioral model based on a predetermined stimulus detected by said stimulus detection means; wherein said behavioral model is a probability automaton prescribed by a state corresponding to a behavior and a transition probability of the state; said changing means changes the transition probability P in the probability automaton by calculating a new transition probability P'' according to the following transition probability equations; wherein the transition probability is multiplied by an improvement ratio L₁ if the stimulus detected by said stimulus detection means is evaluated as being good;

$$P'' = P \times (1+L_1) \quad (\text{where } 0 < L_1 < 1)$$

and by a lowering ratio L₂ if the stimulus is evaluated as not being good;

$$P'' = P \times L_2 \quad (\text{where } 0 < L_2 < 1).$$

Claim 2. (original) The mechanical device according to claim 1, characterized in that said stimulus is provided by a user.

Claim 3. (original) The mechanical device according to claim 2, characterized in that:

 said stimulus detection means comprises a pressure sensor detecting pressure provided by the user as the stimulus; and

 said changing means changes the behavioral model based on the pressure detected by said pressure sensor.

Claim 4. (original) The mechanical device according to claim 2, characterized in that:

 said stimulus detection means comprises a pressure sensor detecting pressure provided by the user as the stimulus; and

 said changing means changes the behavioral model based on the pressure detected by said pressure sensor.

Claim 5. (original) The mechanical device according to claim 2, characterized in that:

 said stimulus detection means comprises a microphone collecting voice provided by the user as the stimulus; and

 said changing means changes the behavioral model based on the voice collected by said microphone.

Claim 6. (original) The mechanical device according to claim 5, characterized in that:

said stimulus detection means further comprises a speech recognition means for recognizing the voice; and

said changing means changes the behavioral model based on speech recognition result of the voice collected by said speech recognition means.

Claim 7. (original) The mechanical device according to claim 6, characterized in that:

said speech recognition means comprises a dictionary storing a word to be voice-recognized corresponding to a method for changing the behavioral model, and outputting any of words stored in said dictionary as the speech recognition result; and

said changing means changes the behavioral model according to the method for changing the behavioral model corresponding to the word as the speech recognition result.

Claim 8. (original) The mechanical device according to claim 5, characterized in that:

said stimulus detection means further comprises a prosody information detection means detecting prosody information about the voice; and

said changing means changes the behavioral model according to the prosody information detected by said prosody information detection means.

Claim 9. (canceled)

Claim 10. (original) The mechanical device according to claim 1, characterized in that said changing means restores the behavioral model to an original state depending on a time lapse after changing the behavioral model.

Claim 11. (currently amended) A method for driving a mechanical device, comprising:

a controlling step of controlling drive means for allowing said mechanical device to perform a behavior based on a behavioral model prescribing a behavior;

a stimulus detecting step of detecting a stimulus; and

a changing step of changing the behavioral model based on a predetermined stimulus detected in said stimulus detecting step; wherein said behavioral model is a probability automaton prescribed by a state corresponding to a behavior and a transition probability of the state; said changing step changes the transition probability P in the probability automaton by calculating a new transition probability P'' according to the following transition probability equations; wherein the transition probability is multiplied by an improvement ratio L₁ if the stimulus detected in said stimulus detection step is evaluated as being good;

$$P'' = P \times (1+L_1) \quad (\text{where } 0 < L_1 < 1)$$

and by a lowering ratio L₂ if the stimulus is evaluated as not being good;

$$P'' = P \times L_2 \quad (\text{where } 0 < L_2 < 1).$$

Claim 12. (currently amended) A recording medium, where a program by which a computer drives a mechanical device is recorded, characterized in that the program comprises:

a controlling step of controlling drive means for allowing said mechanical device to perform a behavior based on a behavioral model prescribing a behavior; a stimulus detecting step of detecting a stimulus; and a changing step of changing the behavioral model based on a predetermined stimulus detected in said stimulus detecting step; wherein said behavioral model is a probability automaton prescribed by a state corresponding to a behavior and a transition probability of the state; said changing step changes the transition probability P in the probability automaton by calculating a new transition probability P'' according to the following transition probability equations wherein the transition probability is multiplied by an improvement ratio L₁ if the stimulus detected in said stimulus detection step is evaluated as being good;

$$\underline{P'' = P \times (1+L_1)} \quad (\text{where } 0 < L_1 < 1)$$

and by a lowering ratio L₂ if the stimulus is evaluated as not being good:

$$\underline{P'' = P \times L_2} \quad (\text{where } 0 < L_2 < 1).$$